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Topic:Periodic properties of elements, S-Block and P-block elements.

1. The sulphate of a metal has the formula $M_2(SO_4)_3$. The formula of its phosphate will be a. M $(HPO_4)_2$ c. M₂(PO₄)₃d. MPO₄ b. $M_3(PO_4)_2$ 2. Elements belonging to the same group of periodic table have a. same number of energy level b. same number of valence electrons c. same ionization enthalpy d. same atomic radii 3. Which of the following has the lowest electron affinity? a. Nitrogen b. oxygen c. argon d. boron 4. The element having very high ionization enthalpy but zero electron gain enthalpy is b. F a. H с. Не d. Be 5. Which of the following ions contain maximum number of unpaired electrons? a. Fe²⁺ c. Co²⁺ b. **Fe³⁺** d. Co³⁺ 6. Which of the following is isoelectronic with hydride ion? a. Li b. He⁺ с. **Не** d. Be 7. The paramagnetic species among the following is a. KO₂ b. SiO₂ c. TiO_2 d. BaO_2 8. Which of the following oxides of nitrogen is paramagnetic? a. N₂O b. N_2O_5 c. NO₂ d. N_2O_3 9. Identify the alkali metal ion having greater degree of hydration? c. K⁺ a. Li⁺ b. Na⁺ d. Rb⁺ 10. Sodium forms Na^+ ion but it does not form Na^{2+} ion because of a. very low value of I and II Ionization enthalpy. b. very high value of I and II ionization enthalpy c. high value of I ionization enthalpy and low value of II ionization enthalpy d. low value of I ionization enthalpy and high value of II ionisation enthalpy. 11. The hydride from amongst the following that cannot be obtained directly by reaction with hydrogen is a. CaH_2 b. MgH₂ c. **BeH**₂ d. NaH 12. Which of the following statements is false for alkali metals? a. Li is the strongest reducing agent. b. sodium is amphoteric in nature c. alkali metals are monovalent d. form hydrides with hydrogen 13. The oxides of alkaline earth metals are basic in nature, exception to a. Ba b. Mg с. Ве d. Ca 14. Zn reacts with excess of caustic soda to give c. ZnCO₃ a. Zn(OH)₂ b. ZnO d. <u>Na₂ZnO₂</u> 15. Which member of group 13 doesnot exhibits the group valency in its compound? b. Al c. Ga a. B d. **TI** 16. Boron halides are lewis acids, because a. they are proton donors b. they are ionic compounds c. they donot have complete octet d. have a lone pair of electrons on boron atoms. 17. Which of the following oxides is acidic in nature? a. **B₂O₃** b. Al_2O_3 c. Ga_2O_3 d. $\ln_2 O_3$ 18. What is the basicity of boric acid? c. 3 d. 4 a. 1 b. 2

	19. When strongly heated, orthoboric acid gives					
	a. HBO ₂	b. H ₄ B ₂ O ₇	с. <u>В</u> 2 О 3	d. B		
	20. The chemical na	me of phosgene is	i			
	a. phosphorus	b. carbonyl ch	oride c. pho	sphorus oxy chlori	de d. phosphorus pentox	ide
	21. The carbide wh					
	a. Al ₄ C ₃	b. <u>CaC₂</u>	c. Fe₃C	d. Mg ₂ C ₃		
	22. Which of these can form more than one type of acid in aq. Media?					
	a. NO	b. N ₂ O ₃	C. <u>N₂O</u> ₄	d. N ₂ O ₅		
	23. Which of these i	s anhydride of nit	rous acid?			
	a. N ₂ O ₃	, b. N₂O₄	c. N ₂ O ₅	d. NO		
	24. Hydride of nitrogen is basic, while oxides of nitrogen are					
	a. only acidic	b. only basic	c. acidio	and neutral	d. only neutral	
	25. Which pair of oxyacids of phosphorous contains P-H bonds?					
	a. H_3PO_4 and H_3I	PO ₃ b. H ₃ PO ₅ a	nd $H_4P_2O_7$ c	H_3PO_3 and H_3PO_2	d. H_3PO_2 and HPO_3	
	26. Which of these contain O-O linkage?					
	a. H ₂ SO ₃	b. H ₂ SO ₄	с	$H_2S_2O_7$	d. <u>H₂S₂O</u> 8	
27.	7. The angular shape of O_3 consists of					
	a. 1σ and 1π	b. <u>2 σ and</u> 1	. <u>π</u> C	. 1 σ and 2 π	d. 2 σ and 2π	
	28. Chlorine reacts with excess of ammonia to form					
	a. NH₄Cl	b. N ₂ + HCl	C	<u>N₂ + NH₄CI</u>	d. N ₂ + NCl ₃	
	29. The reaction of chlorine gas with conc. NaOH is an example of					
	a. oxidation	b. reduction	n c	displacement	d. disproportionation	